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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,762	01/04/2001	Jimmy Randolph Lewis	29488/36815	3783
4743	7590	04/29/2005	EXAMINER	
MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			SHAPIRO, JEFFERY A	
		ART UNIT		PAPER NUMBER
				3653

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/754,762	LEWIS ET AL.
	Examiner	Art Unit
	Jeffrey A. Shapiro	3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 27 May 2004.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 7,8,10-19 and 21-28 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 7,8,10-19 and 21-28 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7, 8, 10-19 and 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spindler et al (US 5,509,538) in view of Lipps (US 6,760,643 B2), and further in view of Wegrzyn (US 5,685,098) and still further in view of Lasher et al (US 5,720,154). Spindler discloses the following.

As described in Claims 7 and 18

- a. a plurality of lights (46, for example) , each light associated with a bin (note the designation of “work zones” represents cartons—see col. 9, lines 42-46);
- b. at least one number display (38) for showing a desired quantity of each stock item;
- c. at least one container display (42 or 44) for showing a unique container identifier associated with a selected container into which each stock item is to be placed (see col. 11, lines 25-30, noting that the LCD display (44) includes a sku number);
- d. a direction display (See figure 2, element (40));

- e. each container is assigned a unique identifier (see col. 5, lines 54-57);
- f. a computer (32) operably coupled to the lights, the at least one number display, and at least one container display, *and the direction display*;
- g. wherein the computer (32) receives the orders for the stock items and assigns a selected container to each stock item;
- h. directs the at least one number display to show the desired quantity of each stock item (see put display (42)),
- i. directs the at least one container display to show the unique container identifier associated with the selected container assigned to each stock item (again, not the sku, etc.);
- j. and illuminates the light for the bin associated with the specific stock item, so that the stock worker is directed to transfer each stock item from the associated bin to the assigned container (note also rack number (12a));
- k. a conveyor (34) positioned near the bins;

As described in Claims 8 and 19;

- l. a plurality of central indicators, in which each central indicator incorporates a number display, a *direction display* and a container display, and wherein each central indicator is associated with a section of the bins (note the local computer (25));

As described in Claims 10 and 21;

- m. each central indicator further comprises a multi-purpose exception button operably connected to the computer (note the buttons (adjust, split and cancel, among others, on the display of figure 2);

As described in Claims 11 and 22;

- n. the lights are incorporated into bin indicators associated with the bins, each bin indicator further comprising a quitting switch operably connected to the computer and adapted to generate a pick complete signal (note that the various portions of the display are provided with different color illumination, see col. 7, lines 1-16);

As described in Claims 12 and 23;

- o. integrated bin indicators associated with the bins, each integrated bin indicator including the number display, the container display, and the light (see figure 2);

As described in Claim 13 and 24;

- p. each integrated bin indicator further comprising a *direction* display operably connected to the computer, the computer controlling each *direction* display to *indicate a direction of a storage bin associated with a subsequent order* (note prior discussion, above);

As described in Claims 14 and 25;

- q. each integrated bin indicator further comprises a quitting switch operably connected to the computer and adapted to generate a pick complete signal (note the "cancel" button on panel (36));

As described in Claims 15 and 26;

- r. each integrated bin indicator further comprises a multi-purpose exception button operably connected to the computer (see discussion, above);

As described in Claims 16 and 27;

- s. several stock workers are assigned to primary bin sections, and in which the computer directs each stock worker to pick products from bins with the assigned primary bin section (note that multiple workers are assigned to various areas, as illustrated in the figures);

As described in Claims 17 and 28;

- t. the computer may override the assigned primary bin section to direct stock workers to heavy pick areas (note that the "split" function allows workers to split batches up);

Spindler does not explicitly disclose, but Lasher discloses the following.

As described in Claims 7 and 18;

- u. *and operates the direction display to indicate a direction of a storage bin associated with a subsequent order;* (Note that Lasher discloses indicator lamps (41) on either side of console (39) to indicate the

direction the pick area is located, either left or right. See Lasher, col. 2, lines 15-30 and col. 5, lines 2-4.)

As described in Claims 7, 8, 13, 18, 19 and 24.

v. the details of a directional indicator (41).

As described in Claims 7, 8, 13, 18, 19 and 24;

w. the details of a stock location indicator consisting of a light (40) associated with a storage bin,

(Note that Lasher's indicators are all controlled by computer (150).)

Spindler, Lipps, Wegrzyn and Lasher are analogous art because Spindler illustrates a directional display (40) with an arrow, Lipps discloses a directional light next to a bin, Wegrzyn discloses in detail a sign with directional arrows on it to indicate direction and Lasher discloses using directional lamps to indicate a right or left direction for a pick as well as bin light indicators near each bin.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added a directional indicator next to information such as a bin location so as to readily convey directional information related to the text information displayed on Spindler's display (36).

The suggestion/motivation would have been to incorporate a "directional indicator that may be modified each time its environment or location necessitates such a change." See Wegrzyn, col. 1, lines 10-17. See also col. 2, lines 64-67 and col. 3, lines

1-2 and 17-20. Note also Lipps indicators and Lasher's indicators (40, 41)—see Lasher, col. 2, lines 15-30 and col. 5, lines 2-4.

With further regard to Lipps, note that the display (36) of Spindler includes a pick location in a numerical form and with an apparent directional arrow in the form of a carrot-like character. Note also Spindler's bicolored or multicolored pick zone indicator (46), mentioned at col. 7, lines 8-11, which further communicates location.

One ordinarily skilled in the art would recognize that it would be advantageous to provide a light at each bin, said light being lit to indicate the appropriate bin or bins from which to pick or put items. Such a recognition would be taught by either Lipps' or Lasher's indicators being placed in such a manner. One ordinarily skilled in the art would recognize that such a directional light indicator and bin light indicator would be useful in Spindler's apparatus, especially since Spindler's system displays the numerical location.

Note also Wegrzyn's directional signals, which illustrate direction indicated not only by a lit indicator or a numerical location identifier, but a light in the form of an arrow indicating the direction in which to go to find a particular item. In the case of Wegrzyn, the item is an exit.

Lasher explicitly discloses use of an indicator lamp (41) on each side of console (39), which indicates either a left or right direction. Note also that this lamp (41) is controlled by computer (150). Note also that this indicator lamp (41) can be construed as a "directional display" since it displays direction, either right or left. This reference

further buttresses the argument that it would have been obvious to one ordinarily skilled in the art to have used a directional indicator in Spindler's display (36).

It would have also been obvious to include a light at each bin, as Lasher does, the motivation being to indicate which bin is to be picked. See figure 2 of Lasher, which shows lamps (40) and (41) being lit to indicate direction (left or right) and particular bin from which to pick the items.

Also, official notice is taken that human understanding of information is helped by presentation in multi-modal fashion, such as presenting location information as a numerical location, with a directional light indicator, as well as a light indicator next to the appropriate bin.

Therefore, it would have been obvious to combine Spindler, Lipps and Lasher to obtain Applicant's system as described in Claims 7, 8, 10-19 and 21-28.

#### ***Response to Arguments***

3. Applicant's arguments filed 2/10/05 have been fully considered but they are not persuasive. Applicant asserts that the claim language of Claim 7 and 18 has not been addressed. In particular, this language reads "illuminates the light for the storage bin associated with the specific stock item in the current pick operation, and operates the direction display to indicate a direction of a storage bin associated with a subsequent pick operation."

This is not the case. As stated above, Spindler does not expressly disclose, but Lipps discloses the details of a stock location indicator consisting of a light (46)

associated with a storage bin. Lasher also discloses a directional indicator (41) and bin indicator/stock location indicator (40).

Regarding Wegrzyn, note that this reference is used for its motivation/suggestion of presenting direction in an arrow-shaped indicator, and for presenting directional information, the problem required to be solved in Spindler's system.

Regarding the term "subsequent" versus "current" pick, note that the pick of Applicant's apparatus appears to be subsequent or current based upon the period in time the operator gets to the pick. At the very least, it would have been obvious to present a subsequent or a current pick, since one ordinarily skilled in the art would recognize that displaying either data is essentially consisting of similar information. Alternatively, subsequent and current picks can be construed as functional equivalents of each other.

Therefore, the rejection of Claims 7, 8 10-19 and 21-28 is maintained.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Humm et al (US 5,438,523) is cited as another example of a pick system having directional indicators (38 and 72), controlled by computer (21).
  
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is

(571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald P. Walsh can be reached on (571)272-6944. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey A. Shapiro  
Examiner  
Art Unit 3653

April 26, 2005



DONALD P. WALSH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600

REPLACEMENT SHEET

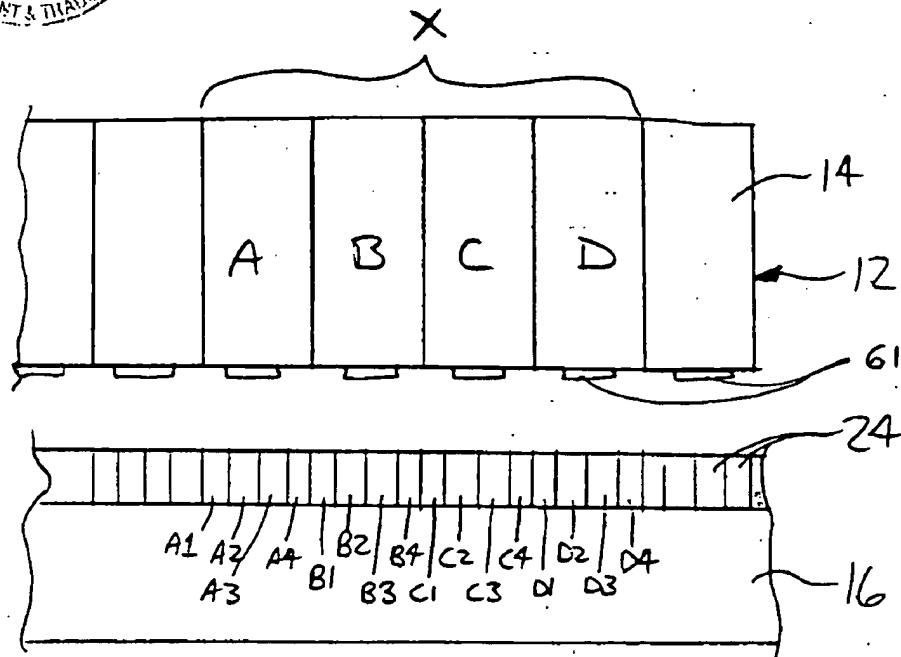


FIG. 3

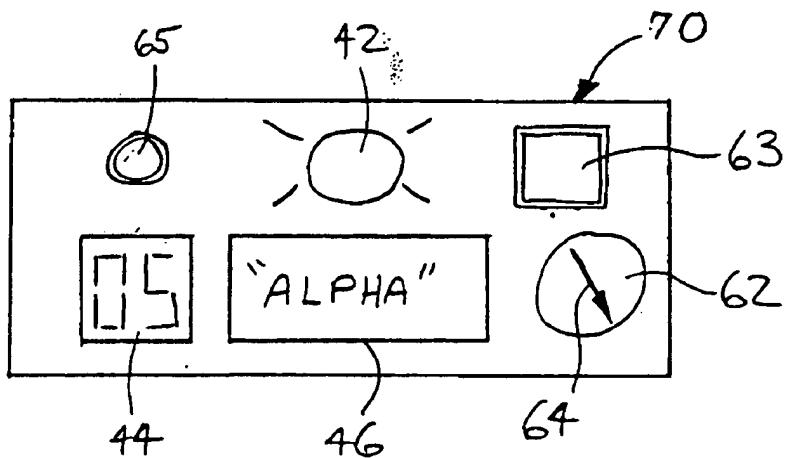


FIG. 5

OK for entry

Jed 4/26/05